

WEJ7905F Three-terminal negative voltage regulator

FEATURES

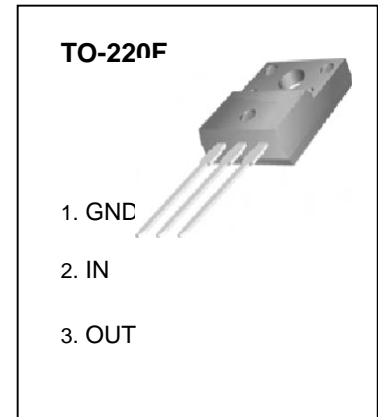
Maximum Output current I_{OM} : 1.5 A

Output voltage V_o : -5V

Continuous total dissipation

P_D : 2 W ($T_J = 25^\circ\text{C}$)

15 W ($T_C = 25^\circ\text{C}$)



ABSOLUTE MAXIMUM RATINGS (operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	-35	V
Operating Junction Temperature Range	T_{OPR}	0-150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65-150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($V_i = -10\text{V}$, $I_o = 500\text{mA}$, $0^\circ\text{C} < T_J < 125^\circ\text{C}$, $C_i = 2\ \mu\text{F}$, $C_o = 0.1\ \mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	V_o	$T_J = 25^\circ\text{C}$	-4.8	-5	-5.2	V
		$-7\text{V} \leq V_i \leq -20\text{V}$, $I_o = 5\text{mA} - 1\text{A}$, $P \leq 15\text{W}$	-4.75	-5	-5.25	V
Load Regulation	ΔV_o	$T_J = 25^\circ\text{C}$, $I_o = 5\text{mA} - 1.5\text{A}$		15	100	mV
		$T_J = 25^\circ\text{C}$, $I_o = 250\text{mA} - 750\text{mA}$		5	50	mV
Line regulation	ΔV_o	$-7\text{V} \leq V_i \leq -25\text{V}$, $T_J = 25^\circ\text{C}$		12.5	50	mV
		$-8\text{V} \leq V_i \leq -12\text{V}$, $T_J = 25^\circ\text{C}$		4	15	mV
Quiescent Current	I_q	$T_J = 25^\circ\text{C}$		1.5	2	mA
Quiescent Current Change	ΔI_q	$-7\text{V} \leq V_i \leq -25\text{V}$		0.15	0.5	mA
	ΔI_q	$5\text{mA} \leq I_o \leq 1\text{A}$		0.08	0.5	mA
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{KHz}$		125		μV
Ripple Rejection	RR	$-8\text{V} \leq V_i \leq -18\text{V}$, $f = 120\text{Hz}$, $T_J = 25^\circ\text{C}$	54	60		dB
Dropout Voltage	V_d	$T_J = 25^\circ\text{C}$, $I_o = 1\text{A}$		1.1		V
Peak Current	I_{pk}	$T_J = 25^\circ\text{C}$		2.1		A

TYPICAL APPLICATION

